Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Printing date 04/13/2015 Reviewed on 04/13/2015

1 Identification

· **Product identifier**

· **Trade name: 12-6-6**
· **Relevant identified uses of the substance or mixture and uses advised against**
· **Product description** PC12 Fertilizers

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Florikan ESA, LLC www.Florikan.com
1579 Barber Rd.
Sarasota, FL. 34240
ph: 941-379-4048 ext 332
Fax: 941-377-3633
Email product info: Doug Cabe; dcabe@florikan.com
· **Emergency telephone number:** Chemtrec 800-424-9300

2 Hazard(s) identification

· **Classification of the substance or mixture**


GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2B H320 Causes eye irritation.
· **Additional information:**
Hazards are exempt when in bonded form as produced and only are only released when the product is cut, ground, crushed, or otherwise removed from the outer coating.

· **Label elements**
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**


GHS07

· **Signal word** Warning
· **Hazard statements**
Causes skin and eye irritation.
· **Precautionary statements**
Wear protective gloves.
Wash thoroughly after handling.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If on skin: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
· **Unknown acute toxicity:**
4.2 percent of the mixture consists of ingredient(s) of unknown toxicity.

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· ***Classification system:***
· ***NFPA ratings (scale 0 - 4)***



Health = 1
Fire = 0
Reactivity = 0

· ***HMIS-ratings (scale 0 - 4)***



Health = 1
Fire = 0
Reactivity = 0

· ***Hazard(s) not otherwise classified (HNOC):*** None known

3 Composition/information on ingredients

· ***Chemical characterization: Mixtures***
· ***Description:*** Mixture of substances listed below with nonhazardous additions.

· ***Dangerous Components:***

CAS: 57-13-6 RTECS: YR 6250000	Urea	15-35%
CAS: 7783-20-2 RTECS: BS 4500000	Ammonium Sulphate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	2-12%
CAS: 7783-28-0 RTECS: TB 9375000	Diammonium phosphate Skin Irrit. 2, H315; Eye Irrit. 2B, H320	2-12%
CAS: 7487-88-9 RTECS: OM 4500000	Magnesium Sulphate STOT SE 3, H335	≤ 2.5%
CAS: 1309-48-4	Magnesium Oxide Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	≤ 2.5%
CAS: 7720-78-7 RTECS: NO 8510000	iron(II) sulfate Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	≤ 2.5%
CAS: 10034-96-5 RTECS: OP0893500	Manganese(II) Sulfate Monohydrate STOT RE 2, H373; Aquatic Chronic 2, H411; STOT SE 3, H335; Aquatic Acute 2, H401	≤ 2.5%

4 First-aid measures

· ***Description of first aid measures***
· ***After inhalation:***
Consult a doctor for complaints.
In case of unconsciousness, place patient securely on side position for transportation.
· ***After skin contact:***
Immediately wash with water and soap and rinse thoroughly.
If skin irritation occurs, consult a doctor.
· ***After eye contact:***
Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.
· ***After swallowing:*** If swallowed and symptoms occur, consult a doctor.
· ***Information for doctor:***
· ***Most important symptoms and effects, both acute and delayed*** No further relevant information available.

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· ***Indication of any immediate medical attention and special treatment needed***
No further relevant information available.

5 Fire-fighting measures

· ***Extinguishing media***
· ***Suitable extinguishing agents:***
CO_2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· ***Special hazards arising from the substance or mixture*** No further relevant information available.
· ***Advice for firefighters***
· ***Protective equipment:***
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

6 Accidental release measures

· ***Personal precautions, protective equipment and emergency procedures*** Not required.
· ***Environmental precautions:*** Do not allow to enter sewers/ surface or ground water.
· ***Methods and material for containment and cleaning up:***
Dispose of the collected material according to regulations.
· ***Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· ***Handling:***
· ***Precautions for safe handling*** No special precautions are necessary if used correctly.
· ***Information about protection against explosions and fires:*** No special measures required.

· ***Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:*** No special requirements.
· ***Information about storage in one common storage facility:*** Not required.
· ***Further information about storage conditions:*** Keep receptacle tightly sealed.
· ***Specific end use(s)*** No further relevant information available.

8 Exposure controls/personal protection

· ***Additional information about design of technical systems:*** No further data; see section 7.

· ***Control parameters***

· ***Components with occupational exposure limits:***	
57-13-6 Urea	
WEEL	Long-term value: 10 mg/m³
1309-48-4 Magnesium Oxide	
PEL	Long-term value: 15* mg/m³ fume; *total particulate
TLV	Long-term value: 10* mg/m³ *as inhalable fraction

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7720-78-7 iron(II) sulfate	
REL	Long-term value: 1 mg/m³ as Fe
TLV	Long-term value: 1 mg/m³ as Fe

· ***Additional information:*** The lists that were valid during the creation of this SDS were used as basis.

· ***Exposure controls***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· ***Breathing equipment:*** Use suitable respiratory protective device in case of insufficient ventilation.
· ***Protection of hands:***



Protective gloves

· ***Eye protection:***



Safety glasses

9 Physical and chemical properties

· ***Information on basic physical and chemical properties***
· ***General Information***
· ***Appearance:***
Form: Granulate
Color: Whitish
· ***Odor:*** Odorless
· ***Odor threshold:*** Not determined.

· ***pH-value:*** Not applicable.

· ***Change in condition***
Melting point/Melting range: Not determined.
Boiling point/Boiling range: -195 °C (-319 °F)

· ***Flash point:*** Not applicable.

· ***Flammability (solid, gaseous):*** Not determined.

· ***Ignition temperature:***

Decomposition temperature: Not determined.

· ***Auto igniting:*** Product is not self-igniting.

· ***Danger of explosion:*** Product does not present an explosion hazard.

· ***Explosion limits:***
Lower: Not determined.

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Upper:	Not determined.
· **Vapor pressure:**	Not applicable.
· **Density:**	
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
· **Solubility in / Miscibility with**	
Water:	Insoluble.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· **Solvent content:**	
Organic solvents:	0.0 %
Water:	0.2 %
Solids content:	100.0 %
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability** Stable under normal conditions.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
57-13-6 Urea		
Oral	LD50	8471 mg/kg (rat)
7783-20-2 Ammonium Sulphate		
Oral	LD50	2840 mg/kg (rat)
Inhalative	LC50/96 hours	36.7 mg/l (Trout)
		433 mg/l (Water flea)
7783-28-0 Diammonium phosphate		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rat)
7487-88-9 Magnesium Sulphate		
Oral	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4 h	>2000 mg/l (rabbit)
	LC50/96 hours	2820 mg/l (Pimephales)

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Trade name: 12-6-6

7720-78-7 iron(II) sulfate		
Oral	LD50	1520 mg/kg (mouse)

· ***Primary irritant effect:***
· ***on the skin:*** Irritant to skin and mucous membranes.
· ***on the eye:***
Irritating effect.
Causes serious eye irritation.
· ***Additional toxicological information:***
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· ***Carcinogenic categories***

· ***IARC (International Agency for Research on Cancer)***
Substance is not listed.

· ***NTP (National Toxicology Program)***
None of the ingredients are listed.

· ***OSHA-Ca (Occupational Safety & Health Administration)***
None of the ingredients are listed.

12 Ecological information

· ***Toxicity***

· ***Aquatic toxicity:***	
57-13-6 Urea	
EC50	>10000 mg/l (daphnia)
7487-88-9 Magnesium Sulphate	
EC50	2700 mg/l (Green algae) 343.56 mg/l (Water flea)

· ***Persistence and degradability*** No further relevant information available.
· ***Behavior in environmental systems:***
· ***Bioaccumulative potential*** No further relevant information available.
· ***Mobility in soil*** No further relevant information available.
· ***Additional ecological information:***
· ***General notes:*** Not known to be hazardous to water.
· ***Results of PBT and vPvB assessment***
· ***PBT:*** Not applicable.
· ***vPvB:*** Not applicable.
· ***Other adverse effects*** No further relevant information available.

13 Disposal considerations

· ***Uncleaned packagings:***
· ***Recommendation:*** Disposal must be made according to official regulations.

14 Transport information

· ***UN-Number***
· ***DOT, ADR, IMDG, IATA*** Non-Regulated Material

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Trade name: 12-6-6

· **UN proper shipping name**	
· **DOT, ADR, IMDG, IATA**	Non-Regulated Material
· **Transport hazard class(es)**	
· **DOT, ADR, IMDG, IATA**	
· **Class**	Non-Regulated Material
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	Non-Regulated Material
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	-

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Sara**

· **Section 355 (extremely hazardous substances):**

7720-78-7	iron(II) sulfate

· **Section 313 (Specific toxic chemical listings):**

7783-20-2	Ammonium Sulphate
11129-60-5	Manganese oxide
10034-96-5	Manganese(II) Sulfate Monohydrate
7758-99-8	Copper Sulfate Pentahydrate
7733-02-0	Zinc Sulphate (anhydrous)
1314-13-2	zinc oxide

· **TSCA (Toxic Substances Control Act):**

57-13-6	Urea
7783-20-2	Ammonium Sulphate
7783-28-0	Diammonium phosphate
7778-80-5	Potassium Sulfate
7447-40-7	Potassium Chloride
7487-88-9	Magnesium Sulphate
1317-61-9	Iron Oxide
1309-48-4	Magnesium Oxide
7720-78-7	iron(II) sulfate
25791-96-2	Poly(oxypropylene) triol
7727-37-9	Nitrogen
7758-99-8	Copper Sulfate Pentahydrate
7733-02-0	Zinc Sulphate (anhydrous)
1314-13-2	zinc oxide
7631-95-0	Sodium Molybdate

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

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· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients are listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

57-13-6	Urea	II
11129-60-5	Manganese oxide	D
10034-96-5	Manganese(II) Sulfate Monohydrate	D
7733-02-0	Zinc Sulphate (anhydrous)	D, I, II
1314-13-2	zinc oxide	D, I, II

· **TLV (Threshold Limit Value established by ACGIH)**

1309-48-4	Magnesium Oxide	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients are listed.

· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**



GHS07

· **Signal word** Warning
· **Hazard statements**
Causes skin and eye irritation.
· **Precautionary statements**
Wear protective gloves.
Wash thoroughly after handling.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If on skin: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.

· **National regulations:**
The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

· **State Right to Know**

CAS: 57-13-6 RTECS: YR 6250000	Urea	15-35%

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CAS: 7783-28-0 RTECS: TB 9375000	Diammonium phosphate Skin Irrit. 2, H315; Eye Irrit. 2B, H320	2-12%
CAS: 7778-80-5 RTECS: TT5900000	Potassium Sulfate	2-12%
CAS: 98059-61-1	Phosphate	2-12%
CAS: 7447-40-7 RTECS: TS 8050000	Potassium Chloride	≤ 2.5%
All ingredients are listed.		

· ***Chemical safety assessment:*** A Chemical Safety Assessment has not been carried out.

16 Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· ***Date of preparation / last revision*** 04/13/2015 / -

· ***Abbreviations and acronyms:***

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
Aquatic Acute 2: Hazardous to the aquatic environment - AcuteHazard, Category 2
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

· **** Data compared to the previous version altered.***

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